

Northern Nigeria : Akwacha, Bassa Province, June 1906  
(Dr. G. J. Pirie).

Although on a cursory inspection *Hematopota tenuicrus* might possibly be mistaken for a pale form of *H. lacessens*, Austen, which also occurs in Northern Nigeria, it is, apart from other characters, easily distinguishable owing to the non-incrassate front tibiæ; the fact that the thoracic stripes remain parallel instead of, as is usually the case, converging posteriorly will also serve as a means of distinguishing the present species.

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XXXIII.—On Mammals from the Malay Peninsula and  
Islands. By OLDFIELD THOMAS.

THE British Museum owes to Mr. Herbert C. Robinson, of Selangor, a further fine collection of Malayan mammals, mostly collected by him during an exploration of the high ground separating the States of Selangor and Pahang. During their determination I have made the following notes, both on them and on other Malayan mammals in the Museum collection.

*Symphalangus syndactylus continentis*, subsp. n.

While the Siamang is common in Sumatra, it is rare on the Malay Peninsula, and but few specimens have ever been sent home for examination. One was received from Mr. Robinson in 1906 and is referred to in Mr. Bonhote's account of the Mammals of the Gunung Tahan Expedition\*, and now another comes from the Semangko Pass, Selangor-Pahang Boundary. Both are fine old males, and have afforded me a good opportunity of comparing the Malay form with that found in the Island of Sumatra. The result is that the Malay form proves to be slightly different from the Sumatran one, and may be diagnosed as follows:—

External characters quite as in true *syndactylus*, except that the size, in agreement with the skulls, will no doubt prove to be rather less.

Skull smaller and more lightly built than in *syndactylus*. Face lower, the orbits smaller and rather less heavily ridged. Muzzle markedly less projecting when viewed from above. Nasal opening decidedly narrower. Tooth-row shorter. Mandible slenderer, its height below the molars less than in *syndactylus*.

\* Journ. Fed. Mal. States Mus. iii. p. 1 (1908).

Dimensions of the type (measured in the flesh):—

Head and body 846 mm.; hind foot 164; ear 34.

Skull \*: greatest length 127; basal length 93.5; condylo-basal length 103; zygomatic breadth 89; nasal opening  $21 \times 14$ ; external orbital breadth 71.5; intertemporal breadth 43.5; mastoid breadth 77; front of canine to back of  $m^3$  41.2.

*Hab.* Malay Peninsula. Type from the Semangko Pass, Selangor-Pahang Boundary; alt. 3000'.

*Type.* Old male. B.M. no. 8. 7. 20. 1. Original number 564. Collected 26 January, 1908, by Mr. H. C. Robinson.

#### GALEOPTERUS.

The receipt of a fine series of the Javan *Galeopterus* presented to the Museum by Mr. W. E. Balston, the loan of the typical skull of *G. undatus*, Wagner, from the Munich Museum, and the receipt of the Malay *Galeopteri* from Mr. Robinson have afforded me the opportunity of re-examining the members of this genus occurring in the Malay Peninsula, Java, and Borneo.

In the first place, I find that the Javan species, which I provisionally called *G. undatus* in my previous paper, may bear the name of *G. variegatus*, Geoff., on the ground that although no definite locality was given in the original description, nor in that by Desmarest in 1820, yet the animal was so distinctly stated to be from Java in Geoffroy's 1829 paper that, in the absence of any discordant character, this may be accepted as fixing the type locality. The fact that such fixing was done by the original author himself may be taken as indicating that he had received evidence as to the locality of his species, or even that he had found out the true locality of his original type specimen.

Under these circumstances I propose to accept the name of *G. variegatus* for the Javan species.

In a general way this species is characterized by its comparatively dark colour, large size, large teeth, and the almost entire absence of sexual difference in size. The skulls before me are ten in number, all fully adult, besides some young ones, and they are all remarkably uniform in size, 75–76 mm. in condylo-basal length, this range including seven males and the largest female; while one female is only 72 mm. in

\* These measures may be compared with those of an adult male skull of *syndactylus* given by Mr. Miller, *Smiths. Misc. Coll.* xlv. p. 70 (1903), remembering that Mr. Miller's "basal length" is what is now known as condylo-basal length, and his "basilar length" as basal length.

length. In other species the female averages markedly larger than the male, but here we have the smallest specimen of the female sex.

With regard to *G. undatus*, of which the type skull has been courteously lent me by the authorities of the Munich Museum, I find that it cannot be referred to *G. variegatus*, as it is still larger, being the largest *Galeopterus* skull on record, with a condylo-basal length of no less than 82·5 mm. Its exact locality remains to be discovered.

Then with regard to the smaller smaller-toothed Malayan and Bornean forms, I am still unable to find any difference between the latter and a specimen from the Natuna Islands, representing *G. natunae*, Mill. Possibly *G. gracilis*, Mill., from Sirhassen will also prove to be the same.

But the additional material from the Malay Peninsula indicates that the form found there is constantly larger, and since no name appears to be applicable to it, I would suggest that of

*Galeopterus peninsulae*, sp. n.

General colour in the grey phase pale, as in Sumatran and Bornean specimens, decidedly paler than in *G. variegatus*.

Skull, while smaller than in *G. undatus*, *variegatus*, and *temminckii*, averaging decidedly larger than in the Bornean and Natuna forms, and with the same marked sexual difference in favour of the female.

Dimensions of the male (measured in flesh):—

Head and body 345 mm.; tail 271; hind foot 65; ear 21. The measurements of the typical female were not taken.

Skulls:—	♂.	♀ (type).
	mm.	mm.
Condylo-basal length .....	68	72·5
Greatest breadth .....	46	50·4
Interorbital breadth .....	18·2	22·3
Breadth of brain-case .....	26	25·7
Palatal length .....	33	35·5
Length of upper tooth-row .....	35·5	37
Three upper molars .....	10·2	11·1

*Hab.* Malay Peninsula. Type from the Semangko Pass, Selangor-Pahang Boundary.

*Type.* Adult female. B.M. no. 8. 7. 20. 10. Original number 632. Collected 23 February, 1908, by H. C. Robinson. Presented by the Selangor Museum.

*Sciuropterus genibarbis*, Horsf.

On extracting the skull of the type specimen of this species, from Java, I find that it is by no means quite like those in

the Museum collection from the Malay Peninsula and Borneo, each of these latter having distinctive characters of their own. The true *S. genibarbis* has long narrow nasals, a very narrow interorbital region, and a much narrower palate than any of the other specimens in the Museum.

Externally all are closely similar, though the type is so faded that the Javan form may possess colour-characters which will only be perceptible on fresh specimens. By the skulls, however, the two following races may be distinguished:—

*Sciuropterus genibarbis malaccanus*, subsp. n.

Size and other essential characters as in true *S. genibarbis*, but the nasals markedly shorter and broader, the teeth heavier, and the palate broader.

General colour above rich chestnut, greyer on the head and fore-quarters. Under surface clay-colour. Tail dark brown above, more rufous below.

Dimensions of the type (measured in skin):—

Head and body (stretched); tail 190 mm.; hind foot 30.

Skull: basilar length (c.) 32.5; greatest breadth 25; nasals, length 10, greatest breadth 6.4, breadth posteriorly 4.2; breadth of brain-case 18.7; palatilar length 17.3; breadth of palate outside  $m^1$  9.3; length of upper tooth-series exclusive of  $p^3$  7.4.

*Hab.* Malacca.

*Type.* Adult female. B.M. no. 60.5.4.83. Collected by Dr. T. Cantor. Presented by the East India Company. Two specimens.

The broad short nasals are the most marked characteristic of this form.

*Sciuropterus genibarbis borneensis*, subsp. n.

Like true *genibarbis* in the shape of the nasals, but the interorbital region and palate broad, as in *malaccanus*, markedly broader than in the Javan form.

Colour as in *malaccanus*, or (as, for example, in the type) rather paler, the posterior dorsal colour approaching Ridgway's "vinaceous cinnamon."

Dimensions of the type (measured in skin):—

Head and body 190 mm.; tail 160; hind foot 32.

Skull: basilar length (c.) 32; greatest breadth 24.8; nasals, length 9.4, greatest breadth 4.6, posterior breadth 3.5; interorbital breadth 8; breadth of brain-case 19; palatilar length 17.3; breadth of palate inclusive of  $m^1$  9.5; length of upper tooth-series exclusive of  $p^3$  7.6.

*Hab.* Northern Borneo. Type from the Bakong River, Baram, E. Sarawak.

*Type.* Adult male. B.M. no. 99.12.9.35. Collected 7 May, 1893, and presented by Dr. Charles Hose. Four Bornean specimens examined.

*Sciuropterus (Hylopetes) belone*, sp. n.

Most closely allied to *S. aurantiacus* and *S. spadiceus*. Colour as in all the members of the *sagitta* group, blackish slaty above, broadly washed with fulvous on the head and back; the under surface white to the bases of the hairs anteriorly and down the middle line of the belly, grey-based with buffy tips on the sides of the belly and inner sides of the hind limbs. Tail dark brown above and below, its middle layer buffy; the midrib below buffy proximally, dark brown terminally; the tail is about as long as in *aurantiacus*, longer than in *spadiceus*.

Skull very similar to that of *S. aurantiacus*, of which the type is now in the British Museum, but with the nasals longer and more narrowed behind, the teeth broader, and the bullæ less inflated vertically, but longer horizontally. As compared with that of *S. spadiceus*, the nasals do not project backwards beyond the frontal processes of the premaxillæ, and the teeth are very markedly broader.

Dimensions of the type (measured in the flesh):—

Head and body 138 mm.; tail 136; hind foot 26; ear 22.

Skull: greatest length 35; basilar length 27.5; greatest breadth 22.3; nasals 10.2; palatilar length 15.6; horizontal length of bulla 10.2; length of upper tooth-series exclusive of  $p^3$  6.8.

*Hab.* Pulo Terntau, Straits of Malacca.

*Type.* Old male. B.M. no. 8.7.20.61. Original number 523. Collected 1 December, 1907. Presented by the Selangor Museum.

This will probably prove to be the small Flying Squirrel of the whole of the Malay Peninsula, but as yet members of this group are so rare that but few localities are represented.

Its two nearest allies are *S. spadiceus* from Arakan and *S. aurantiacus* from Banka, but it differs from the former by its longer tail and broader teeth, and from the latter by its narrower nasals and differently shaped bullæ. The remaining members of the group—*S. sagitta*, Linn. (*S. lepidus*, Horsf.), from Java, *S. everetti*, Thos., from the Natunas, and *S. harrisoni*, Stone, from Borneo—are all larger than *S. belone*.

*Sciurus robinsoni alacris*, subsp. n.

Very like *S. robinsoni*, Bonh.\*, in all essential respects, but the crown is suffused with buffy, owing to the presence of buffy subterminal rings on the hairs, the fore-back is almost as buffy as the hind-back, and the under surface is sharply defined white or creamy white instead of the buff or cream-buff, darkening almost to ochraceous buff on the inner side of the hind legs, characteristic of typical *robinsoni*. The upper surface is therefore more buffy, and the under surface less so than in the older-known form.

In the skull the bullæ (one specimen only perfect) are rather larger than in the type of *robinsoni*, and the incisors (of all four specimens) are a little more markedly thrown forward (less vertical), and their front surface is yellow instead of reddish orange.

Dimensions of the type (measured in the flesh) :—

Head and body 105 mm. ; tail 92 ; hind foot 30 ; ear 12.

Skull : greatest length 34 ; basilar length 26 ; greatest breadth 20 ; upper tooth-series 6.2.

*Hab.* of type. Semangko Pass, Selangor-Pahang Boundary ; alt. 3000'. Other specimens from Cheras and Ginting Bidei, Selangor.

*Type.* Adult male. B.M. no. 8. 7. 20. 43. Original number 613. Collected 24 February, 1908, by Mr. Herbert C. Robinson, and presented by the Selangor Museum. Four specimens examined.

This would appear to be a more southern race of *S. robinsoni*, which was discovered in 1901 by Mr. Robinson on Bukit Besar, a mountain on the Jalor-Nawneik Boundary.

*Laria insignis jalorensis*, Bonh.

Two forms of *insignis* were described from the Malay Peninsula almost simultaneously by Bonhote † and Miller ‡, the one (*jalorensis*) greyish and the other (*peninsulæ*) a bright and comparatively fulvous animal.

Whether these are seasonal phases of one form, or are local races inhabiting respectively the high ground (*jalorensis*) and the low (*peninsulæ*), the material available is not sufficient to show.

The four adult specimens now received from the Semangko Pass, killed in February, are all of the true *jalorensis* type.

\* Fasciculi Malayenses, Zool. i. p. 24 (1903).

† *Funambulus insignis jalorensis*, Bonhote, Fasc. Malay., Zool. i. p. 25 (July 1903).

‡ *Funambulus peninsulæ*, Miller, Smiths. Misc. Coll. xlv. p. 25 (November 1903).